

There was detected rather more than one grain of urea in each ounce measure of blood.—*London Medical Gazette*, 1839.

50. *Analysis of the Liquor Amnii*.—Dr. G. O. REES has made a chemical examination of the liquor amnii in four cases, obtained at the 7 1-2 month of intero-gestation. The results show that this fluid varies greatly in proportional constitution in different individuals, at the same period of utero-gestation, so that, like all the secretions of the body, it is affected by the temperament and diathesis of the mother. The specific gravity of the secretions, however, varied but little in the specimens examined by Dr. Rees (1007. to 1008.6), a precaution, he thinks, on the part of nature to preserve a medium of fixed power to oppose the motions of the fetus in utero.

The experiments of Dr. Vogt, of Berne, (see this Journal for Nov. 1837, p. 219,) would lead us to suppose that there is a great variation in the density of the fluid at different periods. Dr. Rees does not regard those experiments as conclusive, as there is a want of proper relation between the solid contents and specific gravity of the fluids, as given by the Swiss chemist.—*Guy's Hospital Reports*, Oct. 1838.

MISCELLANEOUS.

51. *Reraccination*.—Upon this important subject, which is at present very much agitated in France, there is an interesting memoir by M. DEZEIMERIS, in *L'Experience Journ. de Méd. et Chirurg.* for December last.

According to this writer, the idea that the preservative effects of vaccination have but a limited duration, and that it may be necessary to renew its impressions, at longer or shorter periods, is founded upon two fundamental facts:—

1. Variola, although a preservative from variola, does not afford an infallible and ever-enduring protection from the same disease. Repetitions of variola are never observed following each other closely, but with long intervals from the first attacks. The preservative power is, therefore, at its highest degree, immediately after the body has been exposed to the principle of the disease, and gradually becomes weaker in proportion to the length of time elapsing after this epoch.

2. The practice of inoculation for small pox has shown, that the variolous virus produces a milder form of disease than that resulting when taken the natural way; that the virus becomes milder and milder in the course of successive transplantations; from all which it seems reasonable to conclude that in losing strength during successive reproductions, it also loses its protective power.

Upon these grounds it is allowable to presume that vaccination, the resemblance of which to variola is so striking, must be subjected to similar laws. It is naturally to be doubted whether the preservative power of vaccination ought to be regarded as absolutely unalterable, and it may be presumed that the virus obtained from the cow would become more and more feeble after successive transplantations through the human system. Prudence would, therefore, seem to dictate the necessity of returning from time to time to the original source of the vaccine virus.

Now these conclusions were entertained by the first originators and promoters of vaccination, and promulgated by Jenner himself. But it has been chiefly since the year 1820, from which period so many epidemics have prevailed, calculated to throw doubts upon the question of the infallibility and unalterability of the preservative powers of vaccination and variola, that the greatest number of authors have occupied themselves upon the question of revaccination.

M. Dezeimeris commences his examination of the evidences upon this subject, by reference to the documents furnished by the northern countries of Europe. A few estimates, taken from the Copenhagen bills of mortality, will prove more than all reasoning upon the subject, the degree of preservative power exerted by

vaccination during the first years of its adoption. From the year 1749 to 1808, there perished by small pox in the Danish Capital the following numbers:—

1749 to 1758	2991	persons.
1759 to 1768	2068	"
1769 to 1778	2224	"
1779 to 1788	2028	"
1789 to 1798	2920	"
1799 to 1808	724	"

It must be observed, that in the first two years of the last period, vaccination had not yet been established.

The following facts, furnished by subsequent years, are worthy of attention, as possessing striking interest. From 1800 to 1804, not a single case of small pox occurred among the vaccinated. In 1804, two cases of varioloid occurred. In 1805, five persons died in Copenhagen of varioloid. In 1806, three more of the vaccinated fell victims to varioloid. In 1808, there were 46 deaths by small pox, including 13 cases of varioloid. In 1819, and more especially in 1823, the cases of varioloid and genuine variola occurred in greater number, and were not limited to Copenhagen. It is of importance to mark the ages of the victims of small pox after vaccination, since it furnishes the means of ascertaining the period that has elapsed from vaccination. The following information upon this point is derived from the documents: 21 of the subjects were under the seventh year; 42 between 7 and 11; 191 between 12 and 23; so that in nine-tenths more than ten years had elapsed after vaccination. Three of the victims had genuine confluent small pox; they had been vaccinated on its first introduction. Thus it appears, that the most violent cases, such as terminated fatally, and, consequently, those in whom there no longer subsisted either the privilege of being preserved from the disease, nor even the power of mitigating its violence, were precisely the cases occurring in those that had been the longest vaccinated.

In 1825, a new epidemic commenced in the month of September, which did not terminate before the middle of the year 1827. The records furnish the following particulars: In 623 cases of variola or of varioloid, 428 occurred among those who had been vaccinated; 26 among these had variola, in a form which differed in no respect from that occurring among the vaccinated, and two of these died. This mortality, so very small when compared with that occurring among the unvaccinated, with whom 1 in 5 died, proves that vaccination, even where it does not preserve entirely from the contagion, lessens its malignity. The documents also prove that the proportion of the vaccinated attacked by small-pox, becomes greater and greater from year to year, and that the susceptibility to variola is in direct proportion to the time that has elapsed after vaccination. A new epidemic occurred in 1828, the characteristics of which differed in no respect from those of former years. Of the subjects which the public authorities had revaccinated in 1825, not one was known to be attacked.

In 1832, the epidemic was still more violent, and revaccination preserved the power it had before shown in protecting from attacks of the contagion.

The following results connected with this period, are furnished by Dr. Wendt; it includes observations made upon 3964 cases of revaccination:

Age.	Successful Revaccinations.	Unsuccessful.
1 to 10	- 33	- 1
10 to 20	- 216	- 82
20 to 25	- 2175	- 998
25 to 30	- 191	- 76
30 to 40	- 123	- 43
40 to 50	- 18	- 8
	2756	1208

The facts furnished by Denmark, therefore prove; I. That for some years the variola affords a perfect protection against variola; after which its preservative

virtue no longer prevents a second attack, although it exerts a modifying agency in a greater or less degree. Finally, after the lapse of a certain period, it neither prevents variola from occurring, nor from pursuing its natural course, nor even from proving fatal.

2. That vaccination affords an absolute protection from variola during some years, after which it does not prevent a second attack, but still exerts a modifying agency over the disease, to a greater or less degree. Finally, after a certain period, it neither prevents the variola from appearing, nor from running its ordinary course, nor from causing death.

3. That in regard to absolute protection, revaccination enjoys the same power as variola and vaccination; that it succeeds the more certainly in proportion as the individual upon whom it is practised is removed from the period when he had the small-pox or the cow-pox, and consequently as the necessity is greatest. It is proper to observe that it would appear from the observations furnished by epidemics, that the preservative power exerted by revaccination is temporary, just as is the case with that afforded by variola and first vaccination. From all this, one is forced to declare that both experience and reason dictate the necessity of revaccination, and that it should be propagated with as much zeal as first vaccination.

52. *New Works.*—The following medical works have recently been published in France.

Mémoire sur la cure radicale des pieds-bots. Par H. Scouttetan. 3 fr.

Traité théorique et pratique des maladies des femmes. Par J. Imbert, tom. 1re. 6 fr. The second and concluding volume is promised in six months.

Anatomie comparée du système nerveux. Par F. Lcuret. 1re Livraison. To be completed in 2 vols. 8vo., and 1 vol. folio, of 33 plates. With uncoloured plates 48 fr. With coloured plates 96 fr.

Des pertes seminales involontaires. Par M. le Prof. Lallomand. 2d partie.

Traité théorique et pratique des alterations organiques simple et cancéreuses de la matrice. Par F. Duparcque, D. M. 2d edition entirely remodelled and enlarged. 7 fr.

Traité de pathologie externe et de Médecine opératoire. par A. Vidal, (de Cassis,) tomes 1 et 2, 8vo. To be completed in five vols.

Maladies des enfans—affections de poitrine. 1re partie Pneumonie. Par MM. Rilliet et Barthez, internes des hôpitaux.

Recherches cliniques sur la meningite des enfans. Par M. A. Béquerel, internes des hôpitaux.